

PW4-LA Reinforced Trackbed Separator

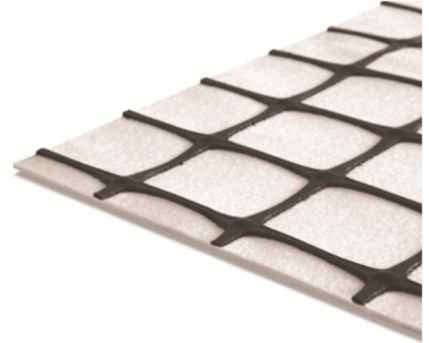
DESCRIPTION:

PDS027 Issue 5—Nov 2021

Geocomposite reinforced trackbed separator consisting of a punched and stretched large aperture biaxial geogrid (Tensar™ SSLA30) thermally bonded to a nonwoven needle punched Terram PW1 geotextile filter/separator.

APPLICATION:

With over 50 years of unrivalled expertise and experience, Terram geotextiles are the original nonwoven geotextiles for separation and filtration applications. The large aperture biaxial geogrid upper component of Terram PW4LA is specifically designed to interlock with railway ballast aggregate providing confinement and increasing the stiffness of the ballast layer. The geotextile filter/separator lower component of PW4LA maintains separation between the adjacent sand/sub-grade and ballast layers within the trackbed construction, preventing the upward movement of fine sub-grade particles and the intermixing of ballast with the blanket. Suitable for use in weak sub-grade soils (soft & boggy conditions).



FEATURES & BENEFITS:

- Single layer of Terram PW4LA geocomposite instead of separate geotextile and geogrid layers is much quicker to install saving time and allowing more track to be installed during a possession window.
- Improved stiffness of ballast layer extends track life and maintenance periods.
- Improved load bearing capacity reduces differential settlement in variable strength ground.
- Reduced bearing pressure on the sub-grade reduces overall settlement.



APPROVAL:

- Network Rail Product acceptance certificate PA05/04556.
- Complies with NR/SP/TRK/010:1996, NR/SP/TRK/9039:2005 and NR/SP/TRK/4239:2020.





INTENDED USE/FUNCTIONS:



INTENDED APPLICATION:



MECHANICAL PROPERTIES	TEST METHOD	UNIT	MEAN VALUE	
Tensile Strength (T_{ult})	EN ISO 10319	kN/m	30	
Tensile Strain (T_{ult})	EN ISO 10319	%	9	
CBR Puncture Resistance	EN ISO 12236	kN	4.3	
Geogrid aperture dimensions		mm	65 x 65	
HYDRAULIC PROPERTIES				
Pore Size - Mean AOS	EN ISO 12956	μm	60	
Permeability	EN ISO 11058	Litres/m ² s	30	
DURABILITY PROPERTIES				
Weathering (UV Exposure)	EN 12224	Days	30	
Combined ageing (Oxidation, temperature & moisture)	EN ISO 13438	Service Life (Yrs)	100	
Abrasion resistance	EN ISO 13427		>80% retained strength	
PHYSICAL PROPERTIES				
Thickness (Nominal)	EN ISO 9863-1	mm	3.5 (ribs) 9 (nodes)	
MATERIAL DIMENSIONS				
Width		m	1.9	3.8
Length		m	25	25
Gross Roll Weight (Nominal)		kg	32	64
Network Rail PADS (Parts and Drawings System) Item Code			057/100644	0057/100779

PACKAGING & IDENTIFICATION STORAGE

Terram geosynthetics are supplied on cardboard cores and wrapped in Polyethylene sheeting with identification labels in accordance with ISO 10320.

The rolls of geosynthetics shall be stored on stable/ level ground and stacked not more than two rolls high and no other materials shall be stacked on top. The rolls can be stored outdoors when packaged, but should be protected from exposure to UV. All materials should be stored in accordance with good health and safety practice and in accordance with local laws. For additional information please refer to Terram Geotextiles MSDS.

QUALITY

Terram geosynthetics are supplied having met internal quality requirements in accordance with our Quality Management system which is certified to BS EN ISO 9001:2015.

NOTES

Reported values are arithmetic mean values unless otherwise stated. For further details on physical parameters please refer to the individual Declaration of Performance certificates available for download from www.terram.com

Reported values related to durability testing are generally based on the lowest grade product within a family.

A Nominal value indicates that the value is not part of the performance specification and is provided for guidance only.

Gross roll weights are provided for lifting guidance only and does not form part of quality control.

ADDITIONAL INFORMATION

Refer to the Terram Joining Methods (downloadable from www.terram.com) for when simple overlaps are required for subsequent and adjacent roll lengths. However, pegging, sewing, stapling or gluing can also be used depending upon the application, the sub-grade conditions, the loading, the convenience and the cost.

These figures relate to standard product weights and roll sizes. Other weights, sizes and colours may be available on request. For further information please contact Terram Technical Support.

How else can we help? Get in touch with us

+44 (0) 1621 874200 info@terram.com www.terram.com

